# Is There an Evidence-Based Number of Sessions in Outpatient Psychotherapy? - A Comparison of Naturalistic Conditions across Countries

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# Is There an Evidence-Based Number of Sessions in Outpatient Psychotherapy? – A Comparison of Naturalistic Conditions across Countries

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Deciding on the number of psychotherapy sessions to satisfactorily treat a patient is a vital clinical as well as economic issue in most mental health systems worldwide. The length of outpatient psychotherapy in naturalistic conditions ranges from a single session to hundreds of sessions [1]. In randomized clinical trials, the number of sessions is typically fixed to deliver manualized treatments and to control for dosage effects (e.g., in a 16-session format [2]). Using data from Routine Outcome Monitoring studies [3, 4], we investigated whether the treatments under naturalistic conditions were fixed to a particular number of sessions or not (H1), whether naturalistic conditions tended to include unusually long treatments (e.g., >100 sessions) (H2), and how the observed number of sessions was distributed across countries (H3).

Based on a systematic review, we identified 20 naturalistic samples across eight countries (published between 2015 and 2019; see Table 1). In individual therapy ($k$ = 17), the number of sessions was not fixed, whereas the three studies that referred to a fixed number of sessions were manualized group or family therapy programs. In all samples, the mean number of sessions (MNS) was lower than 50 sessions with a range from 2.86 to 45.1 sessions (MNS mean = 12.90 sessions, MNS median = 8.21 sessions, skewness = 1.71; Shapiro-Wilk, $p < 0.001$). Moreover, the MNS in individual therapy appears to be influenced by country-specific policies of mental health systems. Whereas in some systems the maximum sessions are mandated (e.g., contingent of max. 8 or 20 sessions in the UK), other systems have more liberal policies (e.g., Switzerland with time-unlimited policies), sometimes impacted by the particular funding scheme of the private or mandatory health insurances. In most samples, the MNS did not exceed the common 16-session format of manualized conditions, except for German samples where the policies allow for a considerably large number of sessions ($t = 9.60$, $p < 0.001$; with a contingent of more than 100 sessions for some treatments).

We observed three different prototypes in which treatment duration is determined: fixed session numbers, contingent of session maximum, and collaboratively negotiated session number. These different prototypes and its hybrid forms are likely to influence expectations about a particular number of sessions needed. Naturalistic settings most often apply custom-tailored and collaboratively negotiated session numbers, targeted at the patient's problems, needs, preferences, time resources, and treatment progress as well as financial resources. In practice,

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**Table 1.** Mean number of sessions under naturalistic conditions (studies published between 2015 and 2019)

| Author | Country | Manualized session number | Maximum of sessions | Type of naturalistic condition (condition x/y) | Sample size | MNS |
|---|---|---|---|---|---|---|
| Brattland et al., 2018 | Norway | no | Not declared | Routine outcome monitoring feedback/treatment as usual | 85/85 | 13.01/12.04 |
| Burlingame et al., 2018 | USA | yes | Fixed 12 | Routine outcome monitoring feedback, group feedback/ usual feedback | 59/67 | 9.86/10.0 |
| Carr et al., 2017 | USA | no | <270 | Routine outcome monitoring feedback | 132 | 23.0 |
| Davidson et al., 2017 | UK | no | Not declared | Clinical outcomes in routine evaluation, feedback supervision/usual supervision | 58/67 | 10.19 |
| Delgadillo et al., 2017 | UK | no | Contingent 8 or 20 | Routine outcome monitoring feedback, before and after feedback study | 349/245 | 10.25/6.59 |
| Delgadillo et al., 2018 | UK | no | Contingent 8 or 20 | Routine outcome monitoring feedback, feedback/no feedback | 1,176/1,057 | 6.54/6.35 |
| Eeren et al., 2018 | The Netherlands | no | Not declared | Routine outcome monitoring, multisystemic therapy or functional family therapy | 697 | 7.96 |
| Flückiger et al., 2019 | Switzerland | no | <170 | General change mechanism feedback | 430 | 30.1 |
| Gmeinwieser et al., 2019 | Germany | no | Contingent up to 95 | General change mechanism feedback | 911 | 45.08 |
| Hales et al., 2018 | UK | no | Not declared | Routine mood monitoring feedback | 11 | 6.27 |
| Haugen et al., 2015 | USA | no | Not declared | Routine outcome monitoring feedback | 36 | 18.58 |
| Hewison et al., 2016 | UK | no | <151 | Clinical outcomes in routine evaluation – outcome monitoring | 877 | 23.3 |
| Lutz et al., 2015 | Germany | no | Contingent up to 95 | Routine outcome monitoring feedback, feedback/no feedback | 507/244 | 42.71/36.18 |
| Malins et al., 2019 | UK | no | <17 | Outcome rating scale feedback, cognitive behavioral therapy/treatment as usual | 56/23 | 8.08 |
| Mechler and Holmqvist, 2015 | Sweden | no | Not declared | Clinical outcomes in routine evaluation, primary care/ specialist psychiatry | 840/317 | 6.01/7.65 |
| Schuman et al., 2015 | USA | yes | Fixed 5 | Outcome rating scale feedback/treatment as usual | 137/126 | 4.16/3.55 |
| She et al., 2018 | China | no | Not declared | Routine outcome monitoring feedback/treatment as usual | 101/85 | 4.78/5.51 |
| Tilden et al., 2019 | Norway | no | <22 | Routine outcome monitoring feedback or treatment as usual | 328 | 5.66 |
| Wise and Streiner, 2018 | USA | no | <26 | Routine outcome monitoring feedback/treatment as usual | 82/79 | 15.91/15.08 |
| Wolchik et al., 2016 | USA | yes | Fixed 11+2 | Family routine inventory feedback/literature condition | 164/76 | 2.86/3.0 |

References of the primary studies can be requested from the first author. MNS, mean number of sessions ; Manualized treatments , treatments refer to an a priori defined number of (manualized) sessions; Maximum of sessions, maximum of sessions reported in the primary studies; Fixed, fixed session number (defined a priori); Contingent, contingent of a maximum of sessions covered by mental health systems; <x/y, maximum of sessions observed in primary studies where session numbers were not declared as strictly fixed or contingented; Not declared, no maximum of sessions reported in the primary study.

Systematic search performed on February 12, 2020 in Medline, PsycInfo, and Psyndex with the keywords "psychotherapy" or "psychological therapy" combined with "Routine Outcome Monitoring," for articles published between 2015 and 2019. A total of 169 articles were identified, of which 59 referred to empirical data in the abstract. Seventeen studies reported a central tendency of the number of sessions (e.g., mean number of sessions). Contact of further five corresponding authors of included studies that did not report the mean number of sessions, resulting in three additional studies and an overall sample of 20 studies across eight countries.

treatment duration substantially depends on treatment progress and dropout rates [5–7].

There is little convergence across countries (and their policies) regarding how treatment duration should be decided. We urge for more precise empirical answers about how much psychological treatment is necessary for whom under naturalistic conditions. We also urge researchers and clinicians to exercise caution when generalizing conclusions regarding the optimal number of sessions across countries. Long-term research programs are needed to better understand how psychotherapy policies, expectations about required sessions, measurement of treatment progress, and the degree of collaborative negotiation may influence treatment duration and its effect on long-term efficacy and cost-effectiveness [8, 9]. We underscore the relevance of cross-cultural scientific societies, such as the International Federation for Psychotherapy (IFP) or the International Society of Psychotherapy (SPR), to consolidate evidence-based psychotherapy knowledge across particular countries and psychotherapy orientations.

## Statement of Ethics

This article corresponds to the self-evaluation checklist of the ethics committee for psychological and related research at the University of Zürich, Switzerland. No approval was required.

## Disclosure Statement

The authors have no conflicts of interest to declare.


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## Author Contributions

C.F. and W.L. conceptualized the research questions. C.F. and A.V. did the systematic search. C.F., W.L., B.E.W., J.D., J.R., and A.V. interpreted the findings and were involved in writing up the letter.

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